

Notice of Allowability

Application No.

10/825,594

Examiner

Tai Duong

Applicant(s)

LEE, YUN-BOK

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Response 02/23/2007.
2. ☒ The allowed claim(s) is/are 1-9,18-28,37-40 and 44-46.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

This application is in condition for allowance except for the presence of claims 10-17, 29-36, 41-43 and 47-58 directed to species non-elected without traverse. Accordingly, claims 10-17, 29-36, 41-43 and 47-58 have been cancelled.

The specification has been amended for correcting a typographical error.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In the claims

Claims 10-17, 29-36, 41-43 and 47-58 have been cancelled.

In the specification

Page 17, line 9, paragraph 0052, "FIGS. 17A-26D" has been changed to --FIGS.17A-17D--.

Reasons for Allowance

The terminal disclaimer filed on 02/23/2007 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of Patent Number 7,177,001 has been reviewed and is accepted. The terminal disclaimer has been recorded.

The terminal disclaimer filed on 02/23/2007 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of any patent granted on Application Number 10/825,486 has been reviewed and is accepted. The terminal disclaimer has been recorded.

The following is an examiner's statement of reasons for allowance:

Claim 1 is allowed over the prior art of record because none of the prior art discloses or suggests an array substrate having the features "a common line parallel to and spaced apart from the gate line; a common electrode extending from the common line and including a plurality of common electrode patterns; a pixel connecting line connected to a capacitor electrode; and a pixel electrode extending from the pixel connecting line and including a plurality of pixel electrode patterns, wherein one of the plurality of common electrode patterns and one of the plurality of pixel electrode patterns form concentric rings of pixel and common electrode patterns that are within an open region of another one of the plurality of common electrode patterns". Claims 2-9 are also allowed since they depend on claim 1.

Claim 18 is allowed over the prior art of record because none of the prior art discloses or suggests an array substrate having the features “a common line parallel to and spaced apart from the gate line; a pixel connecting line extending from the drain electrode; a passivation layer having first and second contact holes on the pixel connecting line, the first contact hole exposing the common electrode and the second contact hole exposing the pixel connecting line; a common electrode contacting the common line through the first contact hole and including a plurality of common electrode patterns; and a pixel electrode contacting the pixel connecting line through the second contact hole and including a plurality of pixel electrode patterns, wherein one of the plurality of common electrode patterns and one of the plurality of pixel electrode patterns form concentric rings of pixel and common electrode patterns that are within an open region of another one of the plurality of common electrode patterns”. Claims 19-28 are also allowed since they depend on claim 18.

Claims 37 and 38 are allowed over the prior art of record because none of the prior art discloses or suggests a method of fabricating an array substrate for an in-plane switching liquid crystal display device comprising the steps “forming a passivation layer on the thin film transistor through a third mask process, the passivation layer having a drain contact hole exposing the drain electrode; and forming a capacitor electrode overlapping the common electrode and being connected to the drain electrode, a pixel connecting line connected to the capacitor electrode and a pixel electrode extending from the pixel connecting line and including a plurality of pixel electrode patterns on the passivation layer through a fourth mask process, wherein one of the plurality of common

electrode patterns and one of the plurality of pixel electrode patterns form concentric rings of pixel and common electrode patterns that are within an open region of another one of the plurality of common electrode patterns”.

Claims 39 and 40 are allowed over the prior art of record because none of the prior art discloses or suggests a method of fabricating an array substrate for an in-plane switching liquid crystal display device comprising the steps of “forming a photoresist pattern on the thin film transistor through a third mask process, the photoresist pattern corresponding to a plurality of regions between the plurality of common electrode patterns; forming a conductive layer on an entire surface of the substrate having the photoresist pattern; and removing the conductive layer on the photoresist pattern by stripping the photoresist pattern to obtain a pixel electrode contacting the pixel connecting line and including a plurality of pixel electrode patterns, wherein one of the plurality of common electrode patterns and one of the plurality of pixel electrode patterns form concentric rings of pixel and common electrode patterns that are within an open region of another one of the plurality of common electrode patterns”.

Claims 44-46 are allowed over the prior art of record because none of the prior art discloses or suggests a method of fabricating an array substrate for an in-plane switching liquid crystal display device comprising the steps of “ forming a semiconductor layer corresponding to the data line, the source electrode and the drain electrode, the semiconductor layer being exposed between the source and drain electrodes, the gate electrode, the semiconductor layer, the source electrode and the drain electrode constituting a thin film transistor; forming a passivation layer on the thin film transistor,

the passivation layer having a first contact hole exposing the common line and a second contact hole exposing the pixel connecting line; forming a plurality of common and pixel electrodes on the passivation layer, wherein the plurality of common and pixel electrodes are formed of concentric rings, the common electrodes connected to the common line through the first contact hole, and the pixel electrode connected to the pixel connecting line through the second contact hole”.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Any inquiry concerning this communication should be directed to Tai Duong at telephone number (571) 272-2291.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


TVD

03/07


TOAN TON
PRIMARY PATENT EXAMINER